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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,804	10/19/2004	Leonie Maria Geerdinck	NL 020303	4276
24737 7590 01/18/2007 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			EXAMINER WON, BUMSUK	
			ART UNIT	PAPER NUMBER
			2879	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE		DELIVERY MODE
3 MONTHS		01/18/2007		PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/511,804

Applicant(s)

GEERDINCK ET AL.

Examiner

Bumsuk Won

Art Unit

2879

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-20 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 16 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

The amendment filed on 8/16/2006 has been entered.

Drawings

The drawings were received on 8/16/2006. These drawings are acceptable.

Response to Arguments

Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 5, 8-16, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noboru (JP 54124583) in view of Hiroyuki (JP 01178584) which is a prior art in the IDS.

Regarding claim 1, Noboru discloses a luminescent screen comprising particles of luminescent material embedded in an inorganic material that comprises aluminum phosphate (abstract, constitution).

Noboru does not disclose the diameter of the luminescent particles being greater than the diameter of aluminum phosphate.

Hiroyuki discloses in an analogous art (color television phosphor) having phosphor particles and aluminum phosphate wherein the size of the aluminum phosphate is much smaller than the phosphor particles (abstract, constitution), for the purpose of achieving excellent dispersibility (abstract, purpose).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have phosphor particles and aluminum phosphate wherein the size of the aluminum phosphate is much smaller than the phosphor particles disclosed by Hiroyuki in the luminescent screen disclosed by Noboru, for the purpose of achieving excellent dispersibility.

Regarding claims 4 and 8, Noboru discloses the luminescent screen is used in a fluorescent lamp (title).

Regarding claim 5, Noboru discloses the discharge lamp having a lamp vessel (abstract, tube) that is transparent for visible light (basic function of a discharge lamp) and the luminescent screen (solution of the fluorescent substance) is deposited on part of an inner wall (inside surface) of the lamp vessel (fluorescent tube).

Regarding claim 9, Hiroyuki discloses the luminescent particles are greater than aluminum phosphate by at least 50 times (abstract, constitution). The reason for combining is same as claim 1.

Regarding claim 10, Hiroyuki discloses aluminum phosphate is added to adhere to the phosphor particles (abstract, constitution, the phosphate is added for the adhering purpose, thus the phosphate is mixed between the phosphor particles). The reason for combining is same as claim 1.

Regarding claim 11, Noboru discloses a luminescent screen comprising: luminescent material having luminescent particles; and inorganic material having inorganic particles including aluminum phosphate (abstract).

Noboru does not disclose the inorganic particles are smaller than the luminescent particles so that the inorganic particles fill pores between the luminescent particles.

Hiroyuki discloses in an analogous art the inorganic particles are smaller than the luminescent particles (abstract, constitution, the phosphate is added for the adhering purpose, thus the phosphate is mixed between the phosphor particles), for the purpose of achieving excellent dispersibility (abstract, purpose).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have phosphor particles and aluminum phosphate wherein the size of the aluminum phosphate is much smaller than the phosphor particles disclosed by Hiroyuki in the luminescent screen disclosed by Noboru, for the purpose of achieving excellent dispersibility.

Regarding claim 12, Hiroyuki discloses the luminescent particles are greater than aluminum phosphate by at least 50 times (abstract, constitution). The reason for combining is same as claim 11.

Regarding claim 13, Hiroyuki discloses the inorganic material includes aluminum oxide and silicon oxide (abstract, constitution). The reason for combining is same as claim 11.

Regarding claim 14, Noboru discloses a discharge lamp (title) comprising: a discharge vessel (abstract, "tube"); and a luminescent screen deposited on part of inner wall of the vessel (abstract, constitution); the luminescent screen comprising: luminescent material having

luminescent particles; and inorganic material having inorganic particles including aluminum phosphate (abstract).

Noboru does not disclose the inorganic particles are smaller than the luminescent particles so that the inorganic particles fill pores between the luminescent particles.

Hiroyuki discloses in an analogous art the inorganic particles are smaller than the luminescent particles (abstract, constitution, the phosphate is added for the adhering purpose, thus the phosphate is mixed between the phosphor particles), for the purpose of achieving excellent dispersibility (abstract, purpose).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have phosphor particles and aluminum phosphate wherein the size of the aluminum phosphate is much smaller than the phosphor particles disclosed by Hiroyuki in the luminescent screen disclosed by Noboru, for the purpose of achieving excellent dispersibility.

Regarding claim 15, Hiroyuki discloses the luminescent particles are greater than aluminum phosphate by at least 50 times (abstract, constitution). The reason for combining is same as claim 14.

Regarding claim 16, Hiroyuki discloses the inorganic material includes aluminum oxide and silicon oxide (abstract, constitution). The reason for combining is same as claim 14.

Regarding claim 19, Noboru discloses a method of forming a luminescent screen on a lamp wall (title) comprising the acts of: mixing luminescent particles with aluminum phosphate particles to form a slurry (abstract, constitution); applying the slurry to the lamp wall (abstract, constitution); and drying the lamp wall (abstract, constitution).

Noboru does not disclose the inorganic particles are smaller than the luminescent particles so that the inorganic particles fill pores between the luminescent particles.

Hiroyuki discloses in an analogous art the inorganic particles are smaller than the luminescent particles (abstract, constitution, the phosphate is added for the adhering purpose, thus the phosphate is mixed between the phosphor particles), for the purpose of achieving excellent dispersibility (abstract, purpose).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have phosphor particles and aluminum phosphate wherein the size of the aluminum phosphate is much smaller than the phosphor particles disclosed by Hiroyuki in the method of forming luminescent screen disclosed by Noboru, for the purpose of achieving excellent dispersibility.

Regarding claim 20, Noboru discloses the mixing act includes mixing aluminum oxide particles in the slurry (abstract, constitution), and the aluminum phosphate includes mono aluminum phosphate (abstract, constitution).

Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Takatsu (JP 60003849).

Regarding claim 1, Takatsu discloses a luminescent screen (fig 1, 3) comprising particles of luminescent material embedded in an inorganic material that comprises aluminum phosphate (abstract).

Takatsu does not disclose the diameter of the luminescent particles being greater than the diameter of aluminum phosphate.

Hiroyuki discloses in an analogous art (color television phosphor) having phosphor particles and aluminum phosphate wherein the size of the aluminum phosphate is much smaller than the phosphor particles (abstract, constitution), for the purpose of achieving excellent dispersibility (abstract, purpose).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have phosphor particles and aluminum phosphate wherein the size of the aluminum phosphate is much smaller than the phosphor particles disclosed by Hiroyuki in the luminescent screen disclosed by Takatsu, for the purpose of achieving excellent dispersibility.

Regarding claims 2 and 3, Takatsu discloses the inorganic material further comprises aluminum oxide (abstract).

Regarding claim 4, Takatsu discloses a discharge lamp (fig 1) equipped with the luminescent screen (3) claimed in claim 1.

Regarding claim 5, Takatsu discloses the discharge lamp (fig 1) further comprising a light transmitting vessel (1) and the luminescent screen (3) being deposited on the inner wall of the vessel (abstract).

Claims 6, 7, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noboru (JP 54124583) in view of Hiroyuki (JP 01178584), in further view of Honda (5,512,798).

Regarding claim 6, Noboru in view of Hiroyuki discloses all of the claimed limitations except for the luminescent screen being covered by a top layer.

Honda discloses a discharge lamp (figs 1A, 1B) having luminescent screen (6) being covered by a top layer (5), for the purpose of protecting the screen.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a luminescent screen being covered by a top layer disclosed by Honda in the discharge lamp disclosed by Noboru in view of Hiroyuki, for the purpose of protecting the screen.

Regarding claim 7, Honda discloses the top layer is made of aluminum oxide (col 13, lines 39-42). The reason for combining is the same as for claim 6 above.

Regarding claim 17, Noboru in view of Hiroyuki discloses all of the claimed limitations except for the luminescent screen being covered by a top layer.

Honda discloses a discharge lamp (figs 1A, 1B) having luminescent screen (6) being covered by a top layer (5), for the purpose of protecting the screen.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a luminescent screen being covered by a top layer disclosed by Honda in the discharge lamp disclosed by Noboru in view of Hiroyuki, for the purpose of protecting the screen.

Regarding claim 18, Honda discloses the top layer is made of aluminum oxide (col 13, lines 39-42). The reason for combining is the same as for claim 17 above.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bumsuk Won whose telephone number is 571-272-2713. The examiner can normally be reached on Monday through Friday, 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Bumsuk Won
Patent Examiner



JOSEPH WILLIAMS
PRIMARY EXAMINER